Abstract of the Disclosure

An ozone generator comprising a number of steel components, including hollow cathode tubes, tubesheets, and a shell, wherein the hollow cathode tubes are disposed between two oppositely disposed tubesheets, wherein each hollow cathode tube delimits an inner space through which gas my flow, wherein the hollow cathode tubes delimit a shell space that may be subjected to coolant, and wherein the steel components are made, at least in part, of a steel having a nickel content of less than 10% by weight and/or a molybdenum content of less than 2% by weight. A cooling unit is provided for cooling and includes an evaporator, compressor and condenser, wherein the evaporator is incorporated directly into the shell of the ozone separator